

SCANNED

AUG 06 2008

File# 1399

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FINAL PLAN OF REMEDIAL ACTION



Burton Island Old Ash Landfill Site Operable Units 1 and 3

*29416 Power Plant Road
Millsboro, Delaware*

*August 5, 2008
DNREC Project No. DE-1399*

This Final Plan of Remedial Action (Final Plan) presents the Department of Natural Resources and Environmental Control's (DNREC's) determination that the following remedial actions will be required at the Burton Island Ash Disposal Area Site, Operable Units 1 and 3, in Millsboro, Delaware:

1. With respect to Operable Unit 1 (OU1), shoreline stabilization and erosion control measures will be implemented as set forth in NRG's Subaqueous Lands Permit Application dated November 10, 2006.
2. With respect to Operable Unit 3 (OU3), no further action will be required.
3. An Operations and Maintenance Plan (O&M Plan) for the site will be drafted to assure that the enacted protective measures are properly maintained. This requirement may be met by the drafting of a site-wide O&M Plan following the investigation and any necessary remediation of Operable Unit 2 (OU2).
4. An environmental covenant will be placed on the site limiting it to commercial or industrial use. In addition, DNREC-SIRB notification would be required prior to digging, drilling, excavating, grading, constructing, earthmoving, or other land disturbing activities on this site. This requirement may be met by the drafting of a site-wide environmental covenant following the investigation and any necessary remediation of Operable Unit 2 (OU2).

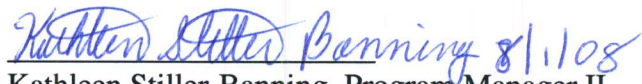
DNREC issued a public notice of the Proposed Plan for this site on May 5, 2008 and opened a 20-day public comment period. A public hearing was held on May 29, 2008. The comment period closed on June 3, 2008. All applicable information regarding this site can be found on the DNREC web page and in the DNREC office on Lukens Drive in New Castle. The Proposed Plan is attached (Attachment A).

Numerous comments and questions from the public were received during the public comment period and public hearing. These were addressed in the Hearing Officer's Report (last part of Attachment B). Following review of the Hearing Officer's Report, Secretary's Order No. 2008-A-0032 (Attachment B), directing that the Proposed Plan be adopted as the Final Plan, was issued on July 30, 2008.

Therefore, the Proposed Plan is adopted as the Final Plan.

Approval:

This Final Plan meets the requirements of the Hazardous Substance Cleanup Act.


Kathleen Stiller-Banning, Program Manager II
Division of Air and Waste Management

ATTACHMENT A
Proposed Plan of Remedial Action

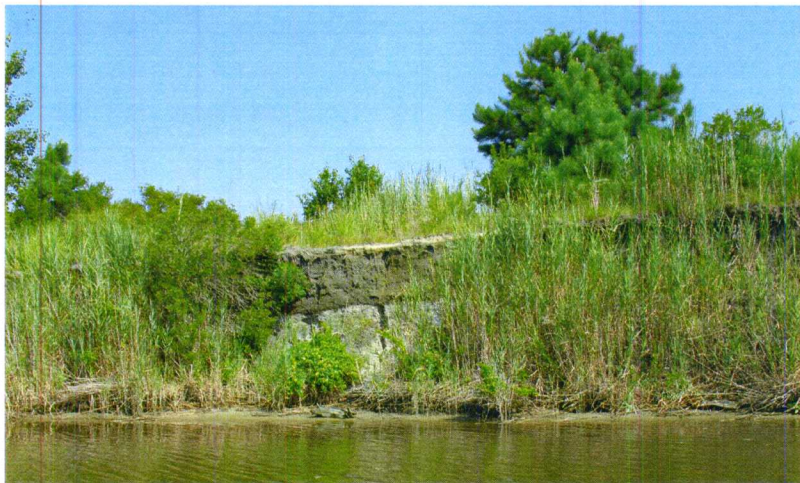


SCANNED
MAY 05 2008
File# 1399 B8

PROPOSED PLAN OF REMEDIAL ACTION

Burton Island Old Ash Landfill Site
Operable Units 1 and 3
Sussex County, Delaware
DNREC Project No. DE-1399

April 2008



Delaware Department of Natural Resources and Environmental Control
Division of Air and Waste Management
Site Investigation & Restoration Branch
391 Lukens Drive
New Castle, Delaware 19720

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PROPOSED PLAN OF REMEDIAL ACTION

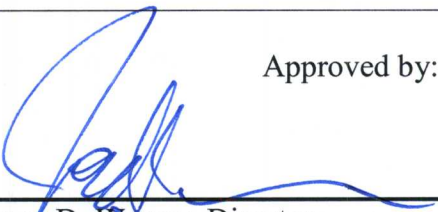
Burton Island Old Ash Landfill Site
Operable Units 1 and 3
Sussex County, Delaware
DNREC Project No. DE-1399



Approval:

This Proposed Plan meets the requirements of the Hazardous Substance Cleanup Act.

Approved by:


James D. Werner, Director
Division of Air & Waste Management

Date

30 April 2008

Burton Island Old Ash Landfill Site Operable Units 1 and 3



What is the Burton Island Old Ash Landfill Site?

This site is an inactive and unoccupied area on the premises of the Indian River Generating Station (IRGS). This site encompasses a 144.23-acre portion of this parcel as well as any area where contaminants from this site may have come to rest.

The site consists of three Operable Units (OUs), as follows:

- **OU1:** shoreline, intertidal zone, and vicinity within the footprint of the portion of the erosion control project surrounding the landfill.
- **OU2:** the landfill/land areas landward (inside) of the footprint of the erosion control project.
- **OU3:** the subtidal sediments and the waters seaward (outside) of the footprint of the erosion control project.

NOTE: *This Proposed Plan applies only to OU1 and OU3. OU2 will be addressed at a later date in a separate document.*

Tax Parcel Numbers: The Site occupies the eastern portion of tax parcel number 2-33-2.00-2.00.

Address: 29416 Power Plant Road, Millsboro, Delaware

Nearest major intersection: Iron Branch Road (Sussex Co. Road 331) and Bunting Road

Area: The landfill occupies 144.23 acres.

Surrounding Property: The site is bordered on the west by the operating portion of the IRGS. Other surrounding land use is wetland and residential. Assawoman Wildlife Area is less than ½ mile downstream.

Zoning: HI-1 (Heavy Industrial)

Site Utilities: None

Surface water: The site is on a peninsula between the tidal waters of Indian River and Island Creek.

Topography: The site consists primarily of fill material (coal ash) deposited to a depth of approximately 10 to 20 feet on former wetlands and subaqueous lands. The topography is uneven over most of the site, with steep-sided depressions found in many areas on either side of the relatively level central roadway. Generally, the shorelines are relatively steep but are intermittently fringed with tidal salt marsh.

Groundwater: The disposal site is underlain by the Columbia sand deposits (Pleistocene age) which blanket the entire central and southern portions of the State. These deposits range in thickness from less than 50 to over 125 feet in southern Delaware and consist of predominantly medium-grained sand with

varying mixtures of silt and gravel. Shallow groundwater on the Site is not used, and is expected to flow radially toward the surface water bodies that surround the Site.

What happened at the Burton Island Old Ash Landfill Site?

IRGS is an active coal-fired electrical generating facility which has operated from 1957 through the present. The previous plant owner-operator, Delmarva Power & Light Company (DP&L) used the Burton Island Landfill for ash disposal from 1957 to 1979. Also, it has been reported to have been used for disposal of dredge spoils. The current site owner/operator is Indian River Power LLC (IRPLLC) (an affiliate of NRG Energy), which purchased IRGS from DP&L in 2001.

In the summer of 2005, DNREC personnel observed erosion of ash-like material into Indian River and Island Creek. DNREC conducted a site reconnaissance and obtained one sample each of sediment and soil. Both samples were found to be contaminated with metals above DNREC's Uniform Risk-Based Standards (URS).

DNREC notified IRPLLC of the need for investigation and possible remediation. IRPLLC entered into a Voluntary Cleanup Agreement with DNREC SIRB to address the contamination.

What is the environmental problem at the Burton Island Old Ash Landfill Site?

Soils, sediments, shallow groundwater, and surface water are contaminated by metals commonly associated with coal ash from electric generating plants. The Constituents of Potential Concern (COPC) included arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, selenium, vanadium, and zinc.

In 2007, Shaw Environmental, Inc., conducted a Facility Evaluation (FE) on all three OUs on behalf of NRG and IRPLLC. The FE included sampling of shoreline and offshore sediments, surface water, soil, and shallow groundwater. The FE also included a Human Health Risk Assessment and a Screening-Level Ecological Risk Assessment. DNREC reviewed the FE report and determined that:

- With respect to Operable Unit 1 (OU1) (shoreline sediments) and OU3 (offshore sediments and waters), the FE, subject to specific comments and corrections mandated by DNREC, was sufficiently detailed and comprehensive to serve as a Remedial Investigation (RI).
- With respect to OU2, the FE was **not** sufficiently detailed and comprehensive to serve as an RI, and that additional work will be required to complete the RI of OU2. Therefore, OU2 cannot be addressed in this document.

What does the owner want to do at the Burton Island Old Ash Landfill Site OU1 and OU3?

OU1: NRG/IRPLLC intend to install erosion control/bank stabilization measures along OU1. The erosion control measures consist of:

- Installation of armor stone and large concrete blocks underlain by geotextile (synthetic fabric) along the shorelines of Burton Island.
- Enhancement or creation of tidal marsh along shoreline areas where wave energies are sufficiently low to permit its survival.

OU3: NRG/IRPLLC intend to take no further action with respect to OU3.

What clean-up actions have been taken at the Burton Island Old Ash Landfill Site OU1 and OU3?

None.

What additional clean-up actions are needed at the Burton Island Old Ash Landfill Site OU1 and OU3?

DNREC's clean-up plans include erosion control measures to prevent further erosion of the landfill into surface water. *(See Figure 5.)*

DNREC proposes the following cleanup actions for **OU1**, to be undertaken by NRG/IRPLLC:

1. Erosion control measures as described in Subaqueous Lands Permit: SP-406/06/Water Quality Certification: WQ-395/07 issued by the DNREC Wetlands and Subaqueous Lands Section, *i.e.*,
 - a. Installation of armor stone ("riprap") underlain by geotextile (synthetic fabric) along the shorelines of Burton Island.
 - b. Enhancement or creation of tidal marsh along shoreline areas where wave energies are sufficiently low to permit its survival.
2. Adoption of an Operations and Maintenance (O&M) Plan to insure the continued integrity of the remedy. (The Site Owner may elect to submit an O&M Plan covering both OU1 and OU2 following the completion of any remedial action that may be required for OU2.) The O&M Plan, the provisions of which are subject to DNREC approval, shall include, at a minimum:
 - a. Annual monitoring of sediment quality immediately offshore; frequency, duration, parameters and locations of sampling to be approved by DNREC.
 - b. Annual monitoring of the armor stone erosion control structures.
 - c. Annual monitoring of the survival and integrity of the shoreline wetlands.
 - d. Methods of securing the site to prevent public exposure to any contamination.

- e. Performance Standards for the above.
- f. Requirements for timely corrective measures in the event that the remedy is not performing as designed or is not protective of human health and welfare and the environment.

3. Adoption of a Uniform Environmental Covenant restricting future use of OU1.

Based on the findings of the FE report that no significant risk is posed by the offshore sediments, **no further action** is proposed for **OU3**.

What are the long term plans for the Site after the cleanup?

OU1: NRG/IRPLLC intends to maintain the area in an unused state, secured from public entry, and to implement remedial and O&M measures as required by the DNREC-approved O&M Plan.

OU3: OU3 lies within public waters of the State of Delaware and will remain open to the public on the same basis as before.

How can I find additional information or comment on the Proposed Plan?

The complete file on the site including the Facility Evaluation Report is available at the DNREC office, 391 Lukens Drive in New Castle. Most documents are also found on:

<http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/>

The 20-day public comment period begins on **May 5, 2008** and ends at close of business (4:30 pm) on **May 27, 2008**. Please send written comments to the DNREC office or call Gregory DeCowsky, Project Manager, at:
302-395-2600.

GMD: tlw; GMD08018.doc; DE 1399 II B 8

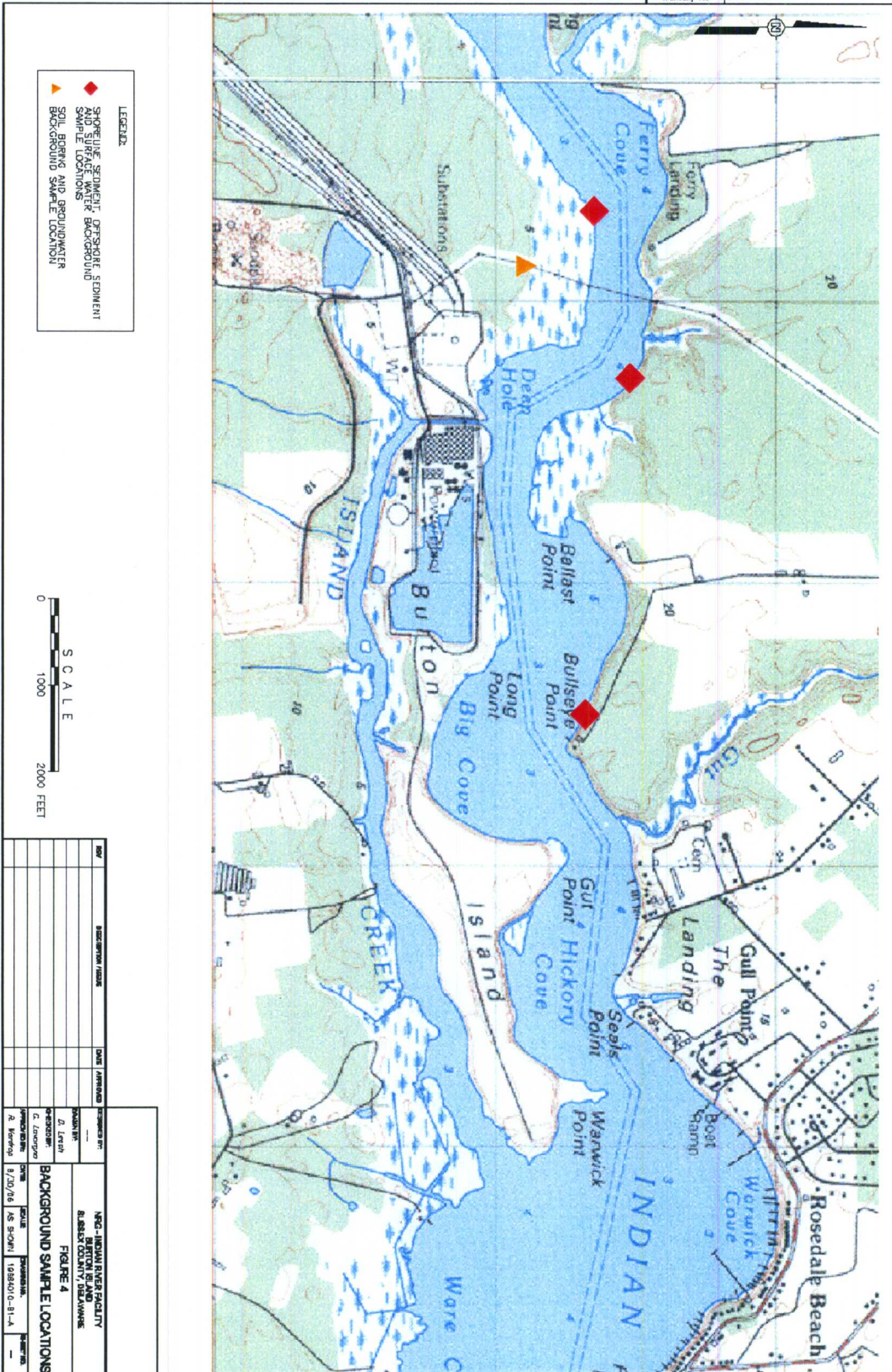


Figure 1: *Site Location.*

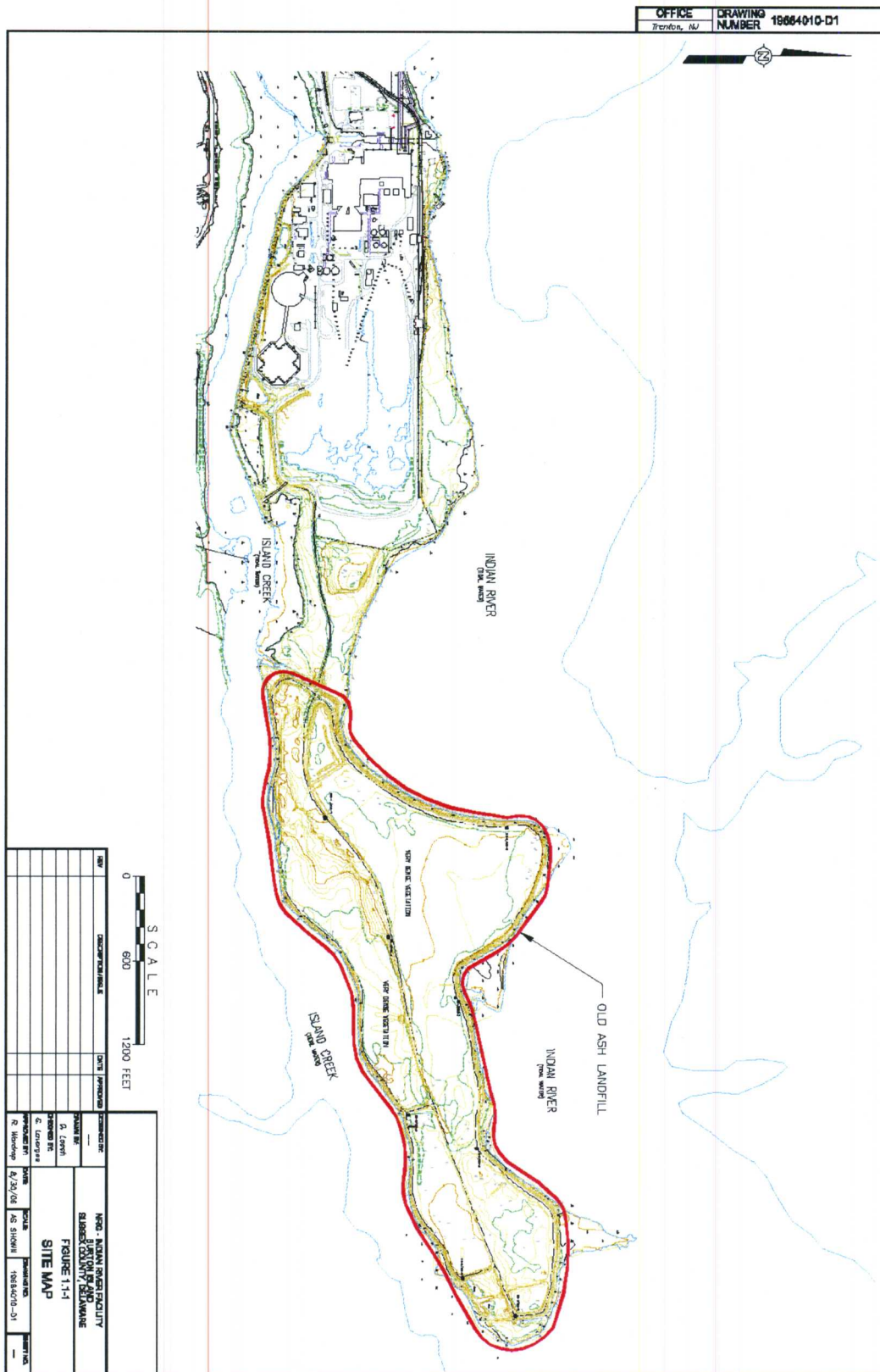


Figure 2. Site map showing location of Burton Island Landfill in relation to Indian River Generating Station.



Figure 3: *Erosion, south (Island Creek) side of Burton Island, August, 2005.*



Figure 4: *Erosion; north (Indian River) side of Burton Island, August, 2005.*





Figure 6. Erosion control/bank stabilization under construction along the perimeter of the active portion of the plant, March, 2008. Similar measures are proposed to be employed for OU1.

Glossary of Terms Used in this Proposed Plan

Aquifer	A geologic formation, group of formations, or a part of a formation capable of yielding groundwater to wells or springs.
Constituent of Potential Concern (COPC)	These are potentially harmful substances found at a site at concentrations above acceptable levels (at this site, certain metals,). Identification of COPC is the first step in a Risk Assessment.
Contamination	The introduction of harmful or hazardous matter into the environment.
Disposal	The discharge, deposit, injection, dumping, spilling, leaking or placing of any hazardous substance into or on any land, water or into the air so that such hazardous substance or any constituent thereof may enter the environment.
Exposure	Contact with a substance through inhalation, ingestion, or direct contact with the skin. Exposure may be short term (acute) or long term (chronic).
Facility Evaluation (FE)	If the initial investigation indicates a release or imminent threat of release, DNREC conducts an FE to assess the related risk. This may consist of a review of general facility and existing information and/or a field investigation, including sampling of soil, air, groundwater, surface water, sediments, and animals or plants as appropriate. The scope is flexible and depends on the specific conditions of the facility.
Final Plan of Remedial Action	DNREC's proposal for cleaning up a hazardous site after it has been reviewed by the public and finalized.
Geotextile	Permeable fabrics which, when used in association with soil, have the ability to separate, filter, reinforce, protect, or drain. In the case of OU1, a geotextile base under the armor stone will be used to stabilize the sediment surface and help prevent the erosion of contaminants into surface water and the exposure of aquatic organisms to contaminants.
Groundwater	Water below the land surface in the zone of saturation.

Hazardous Substance	<p>(a) Any hazardous waste as defined in 7 <i>Delaware Code</i>, Ch. 63, or any hazardous waste designated by regulation issued under 7 <i>Del. C.</i>, Ch. 63;</p> <p>(b) Any hazardous substance as defined in CERCLA or regulations issued under CERCLA;</p> <p>(c) Petroleum, including crude oil or any fraction thereof; however, any release of hazardous substances from an underground storage tank which is regulated by 7 <i>Del. C.</i>, Ch. 74 or regulations issued under it is not subject to these regulations except that such a release is eligible for funding under Subsection 14.1;</p> <p>(d) Any substance in sufficient concentrations which the Secretary through regulation determines may present risk to the public health, welfare, or the environment.</p>
Hazardous Substance Cleanup Act (HSCA)	<i>Delaware Code</i> Title 7, Chapter 91. The law that enables DNREC to identify parties responsible for hazardous substances releases and requires cleanup with oversight of the Department.
No Further Action (NFA)	A No Further Action decision can be issued at the end of an investigation or the completion of the remedy. NFA means that no known danger exists at the site.
Operable Unit (OU)	The cleanup of a site can be divided into a number of operable units depending on the complexity of the problems associated at a site. Operable units may address geographic portions of a site, specific site problems, or initial phases of an action, or may consist of any set of actions that are concurrent but located in different parts of a site. The determination of an operable unit may vary over time as a result of change in activity or need.
Operations & Maintenance (O&M)	<p>The activities necessary to provide for continued effectiveness and integrity of a remedial action after it is completed.</p> <p>O&M includes all activities needed to ensure effective operation of the remedy under both normal conditions and emergencies. Post-cleanup compliance monitoring (regular testing to determine if the prescribed cleanup levels have been met and if the treated effluent or emission meets discharge requirements) is often included under O&M.</p>

Owner or Operator	<p>(a) Any person owning or operating a facility.</p> <p>(b) Any person who previously owned, operated, or otherwise controlled activities at a facility.</p> <p>(c) The term "owner or operator" does not include an agency of the State or unit of local government that acquired title or control of the facility involuntarily through bankruptcy, tax delinquency, abandonment or other circumstances.</p> <p>(d) The term "control" does not include regulation of the activity by a federal, state or local government agency.</p> <p>(e) The term "owner or operator" does not include a person, who, without participating in the management of a facility, holds indicia of ownership primarily to protect his security interest in the facility.</p>
Proposed Plan of Remedial Action	A plan for cleaning up a hazardous site submitted by DNREC and subject to public comments.
Release	<p>Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing of a hazardous substance, pollutant or contaminant into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant), but exclud[ing]:</p> <p>(a) any release which results in exposure to a person solely within his or her workplace, with respect to a claim which such person may assert against his or her employer; provided, however, that this exclusion does not apply to any such release which also results in exposure to the environment;</p> <p>(b) emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel or pipeline pumping station engine;</p> <p>(c) the appropriate and legal application of fertilizers and pesticides; and</p> <p>(d) any discharges in compliance with State permits issued in conformance with Title 7 of the <i>Delaware Code</i> and federally permitted releases under CERCLA.</p>
Remedial Investigation (RI)	A detailed evaluation of a release or imminent threat of release of a hazardous substance. An RI is conducted to determine the extent of contamination and the risks to public health and welfare and the environment. It typically includes site characterization, field investigations, and performance of risk assessments as well as collection of engineering data that may be required to complete a feasibility study and or remedial design.

Remedy	Any action, response, or expenditure consistent with the purposes of HSCA, or any regulations or guidance issued under HSCA to identify, minimize, or eliminate any imminent threat posed by any hazardous substances, including preparation of any plans, conducting of any studies and any investigative, oversight, or monitoring activities, and any health assessments, risk assessments, or similar studies conducted to determine the risk or potential risk to public health or welfare or the environment.
Risk	Likelihood or probability of injury, disease, or death.
Risk Assessment	The systematic, multi-step process of elimination used to estimate the possible effects of exposure of human populations (Human Health Risk Assessment or HHRA) or the environment (Ecological Risk Assessment or ERA) to hazardous substances.
Sediment	A loose unconsolidated deposit of weathering debris, chemical precipitates, or biological debris that accumulates on Earth's surface; often under water. Sediments which become contaminated are often difficult and expensive to clean up, and provide a pathway for exposure of aquatic animals to hazardous substances.
Site Investigation and Restoration Branch (SIRB)	The branch within DNREC's Division of Air and Waste Management (DAWM) which carries out HSCA and the <i>Delaware Regulations Governing Hazardous Substance Cleanup</i> , overseeing cleanup and restoration of hazardous substance sites.
Uniform Environmental Covenant	A standardized form of a land use restriction that is recorded on the deed and runs with the land. Provisions governing UECs are found in the Uniform Environmental Covenants Act (UECA).
Voluntary Cleanup Program (VCP)	<p>The remedial process established by DNREC under HSCA, that a party willingly enters into (provided its application is approved by DNREC) for the purpose of conducting a remedy at a facility.</p> <p>When a property is contaminated with hazardous substances there are liabilities under Federal and State laws, regardless of who caused the contamination and when it was caused. Because of these liabilities, old industrial sites (with contamination) may not readily attract developers or buyers. Under the VCP, developers and buyers performing the cleanup of contaminated properties are provided protection from potential liabilities for past contamination, provided certain requirements are met.</p>

What is a *Proposed Plan*?

A Proposed Plan of Remedial Action (Proposed Plan) is a summary of how DNREC plans to clean up a contaminated site. A Final Plan of Remedial Action (Final Plan) is the adoption of the Proposed Plan, after all comments made by the public within the comment period of twenty days have been considered and addressed by DNREC.

The Delaware State Legislature passed the Hazardous Substance Cleanup Act (HSCA) in 1990. The Legislature made sure that members of the public would be informed about environmental problems in their own neighborhoods and have a chance to express their opinion concerning the clean up of those environmental problems before DNREC takes action.

After DNREC studies a site, it summarizes the problems there and proposes one or more possible solutions in a Proposed Plan. The Proposed Plan contains enough information to allow lay persons to understand the site. More detailed information can be found in the reports and documents approved by DNREC. All of the documents and reports created by DNREC or consultants during the course of the investigation of the site are available to the public at the offices of DNREC-SIRB or at DNREC's website:

<http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/sitefiles.asp> .

DNREC issues the Proposed Plan by advertising it in at least one newspaper in the county where the site is located. The legal notices for the Proposed Plans and the Final Plans usually run on Wednesdays or Sundays in the legal classified section of the News Journal and/or the Delaware State News. The public comment period begins on the day (Wednesday), or the day after (Sunday) the newspaper publishes the legal notice for the Proposed Plan.

DNREC frequently holds public meetings during the comment period. Those meetings are usually held near the site in the evening. Citizens can request a public meeting if DNREC did not already schedule one.

Comments are collected at the public meetings, by phone or in writing. DNREC considers all comments and questions from the public before the Proposed Plan is finalized and adopted as a Final Plan.



STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL
89 KINGS HIGHWAY
DOVER, DELAWARE 19901

Office of the
Secretary

Phone: (302) 739-9000
Fax: (302) 739-6242

Secretary's Order No. 2008-A-0032

Re: Approval of Final Plan of Remedial Action for Burton Island Ash Disposal Area (Operable Units 1 & 3)

Date of Issuance: July 30, 2008

Effective Date: July 30, 2008

Under the authority granted the Secretary of the Department of Natural Resources and Environmental Control ("Department" or "DNREC") under 7 Del C. §6003, the following findings, reasons and conclusions are entered as an Order of the Secretary. This Order considers the Proposed Plan of Remedial Action dated April 30, 2008 ("Plan"), which the Department's Division of Air and Waste Management's ("DAWM") Site Investigation and Restoration Branch ("SIRB") prepared.

SIRB prepared the Plan pursuant to the *Delaware Hazardous Substance Cleanup Act*, 7 Del. C. Chapter 91 and the Department's Voluntary Cleanup Agreement process. The intent of the Plan is to allow environmental remediation to take place for areas the Plan identifies as Operable Units 1 and 3 of the Burton Island Old Ash Landfill Site ("Burton Island"). Operable Unit 1 is Burton Island's shoreline and intertidal zone areas and Operable Unit 3 is the subtidal sediments and nearby surface waters. Operable Unit 2 is the ash pile located on Burton Island and this area remains the subject of the Department's investigation and a possible future proposed plan of remedial action.

The Department held a public hearing on the Plan before the Department's assigned presiding Hearing Officer, Robert P. Haynes, who prepared a remedial decision record and a Hearing Officer's Report dated July 2, 2008 ("Report"). The Report recommends approval of the Plan as a Final Plan. The Report indicates that the Plan proposes to restore the entire shoreline of Burton Island by installing armor stone and large concrete blocks, which would be placed over a geotextile cover barrier. The Plan also proposes to create tidal marshes in suitable locations, namely, where wave energies are sufficiently low to support such tidal marshes. Together these steps are designed to reduce erosion and contain the ash from entering the surface waters.

The Report reviews the public comments, which largely approved the Plan's erosion control purpose as a necessary temporary or interim effort at remediation. Some comments objected to the lack of a proposed remedial action to remove the ash located at Burton Island. The Report recommends that the Plan be adopted as a Final Plan of Remedial Action in order to commence the shoreline erosion control and stabilization project as soon as possible. The Department already issued a subaqueous lands permit to allow the Plan's work in the subaqueous lands.

Based upon the Report, a copy of which is appended to this Order and incorporated herein, and the record of remedial decision I approve the Plan and adopt it as a Final Plan of Remedial Action pursuant to 7 Del C. § 9107(e). This approval will not be the final environmental remedy for Burton Island because the Department still has to prepare a proposed plan of remedial action for Operable Unit 2, which is the old ash pile. Nevertheless, the erosion control and shoreline stabilization, which the Department first discovered in 2005, will be the subject of the first environmental remediation while the Department addresses the environmental remediation for the ash pile itself.

In sum, as more fully described in the reasons and findings above and in the Report, I adopt and direct the following as a final order of the Department:

1. The Department has jurisdiction under its statutory authority to make a determination in this proceeding;
2. The Department provided adequate public notice of the proceeding and the public hearing in a manner required by the law and regulations;
3. The Department held a public hearing in a manner required by the law and regulations;
4. The Department considered all timely and relevant public comments in making its determination;
5. The Department shall issue the Final Plan of Remedial Action based upon the Proposed Plan of Remedial Action in order to allow the construction of the shoreline restoration to go forward without delay while the Department studies the remaining areas of Burton Island for environmental remediation; and
7. The Department shall provide notice of this action by mail or email on each person who requested to receive such notice, as shown on the public hearing sign in sheet or in written correspondence to the Department.

s/John A. Hughes
John A. Hughes
Secretary

HEARING OFFICER'S REPORT

TO: The Honorable John A. Hughes
Secretary, Department of Natural Resources and Environmental Control

FROM: Robert P. Haynes, Esquire
Senior Hearing Officer, Office of the Secretary
Department of Natural Resources and Environmental Control

RE: Proposed Plan of Remedial Action for Burton Island Ash Disposal Area
(Operable Units 1 & 3)

DATE: July 2, 2008

I. BACKGROUND AND PROCEDURAL HISTORY

This Report is submitted to the Secretary of the Department of Natural Resources and Environmental Control ("Department" or "DNREC") in order to make recommendations for the Department's final decision on whether to approve the Department's April 30, 2008 proposed plan of remedial action ("Plan"). The Department's Division of Air and Waste Management ("DAWM"), Site Investigation and Restoration Branch ("SIRB"), prepared the Plan pursuant to the *Delaware Hazardous Substance Cleanup Act, 7 Del. C. Chapter 91* ("HSCA") and the Department's regulations "*Delaware Regulations Governing Hazardous Substance Cleanup*." The Plan is for the environmental remediation of a portion of Burton Island¹ near Millsboro, Sussex County.

The environmental remediation was required when a 2005 Department field inspection noticed severe erosion along much of Burton Island's shoreline. The erosion threatened to have coal ash disposed on Burton Island enter the surface waters. The Department reviewed tests of samples taken from Burton Island, which showed nine hazardous substances that exceeded the levels allowed by the Department's regulations. Consequently, these levels triggered the Department's procedure under HSCA.

¹ Burton Island is a 244 acre parcel and a peninsula formed between the Indian River to the north and Island Creek to the south, which converge at the eastern shore into the Indian River Bay.

SIRB required the owner of Burton Island, Indian River Power, LLC,² (“IRP”), to conduct a Facility Evaluation. The Facility Evaluation was completed in 2007 by Shaw Environmental (“Shaw”), which is a Department approved consulting firm. The Department developed the Plan based upon the Facility Evaluation and its own independent analysis, including experts within SIRB and in SIRB’s independent ecological consulting firm, Louis Berger Group.

Burton Island was owned by Delmarva Power and Light Company (“DP&L”), which used Burton Island to dispose of coal ash waste from DP&L’s coal-fired Indian River Generating Station’s (“IRGS”) from 1957 through 1979. In 1979 DP&L began disposing the coal ash into an on-site industrial landfill that the Department approved.³ In 2001, DP&L sold Burton Island, along with its environmental liability and the IRGS, to IRP. When the Department notified IRP of its status of a potential responsible party under HAS, IRP elected to participate in the Department’s Voluntary Cleanup Program (“VCP”). IRP and the Department signed a VCP agreement in 2007 pursuant to the VCP procedures and policies.

The Plan considers the environmental remediation of two areas, or operable units,⁴ of Burton Island. The Plan identifies Operable Unit 1 (“OU1”) as Burton Island’s 10,410 feet of shoreline and identifies Operable Unit 3 (“OU3”) as Burton Island’s subtidal sediments and the surrounding surface waters. The Plan does not address Operable Unit 2 (“OU2”), which is the area where DP&L disposed of the coal ash. OU2 was not considered in the Plan because this area is still the subject of an ongoing Department environmental remediation investigation, including all storm water and groundwater issues. This portion of the Burton Island HSCA investigation is anticipated to be completed in 2008.

² IRP is a subsidiary of NRG Energy Inc.

³ The Department was not created until 1970 and there was no authority to regulate solid waste until 1974.

⁴ HSCA defines an operable unit as “any subdivision of a facility in terms of area or environmental media or any other manner approved by the Secretary.” 7 Del C. § 9103 (13).

because it will be addressed in the Plan for OU2 that has yet to be submitted for public comment. I find that the Plan should not be modified to recommend the removal of the ash at this time because it was not included in the scope of the Plan that is available for public comment. The pending OU2 investigation will be the appropriate time to review this option, although I agree with the public comments that the Department should try to consolidate hearings and public comment whenever possible. The decision to break Burton Island into three Operable Units is consistent with the investigation of the three physical components of the ash, the shoreline's tidal area and the offshore area. Nevertheless, the Department is aware of the public's concerns with piecemeal approaches and I recommend that the Department try to consolidate hearings in the future through improving internal procedures whenever possible. There was no request for a public hearing, but a public hearing was held based upon the past high public interest in the IRGS.

I find that the Department's Plan is a reasonable and sound method of environmental remediation of the subject areas. The need to control erosion as quickly as possible was the reason the Plan did not include OU2, which the Department is still investigating. The Department's technical experts on shoreline erosion, environmental remediation and risk assessment have provided sufficient support for the Plan. In sum, the Department's experts considered the public comments, but have indicated that no change is warranted to the Plan. I agree with their recommendation and recommend that the Plan be adopted as a final Plan by the Secretary. Of note, none of the public comments indicated any opposition to the purpose of the Plan, which was to control erosion and to stabilize the shoreline.

IV. RECOMMENDED FINDINGS AND CONCLUSIONS

Based on the record developed, I find and conclude that the record supports approval of the issuance of the Plan as a final Plan of Remedial Action. In conclusion, I recommend the Secretary adopt the following findings and conclusions:

- 1.) The Department has jurisdiction under its statutory authority to make a determination in this proceeding;
- 2.) The Department provided adequate public notice of the proceeding and the public hearing in a manner required by the law and regulations;
- 3.) The Department held a public hearing in a manner required by the law and regulations;
- 4.) The Department considered and responded to all timely and relevant public comments in making its determination;
- 5.) The Department's proposed plan of remedial action for Operable Units 1 and 3 at the site known as the old Burton Island ash landfill is consistent with the law, regulations, and the Department's policies and is hereby adopted as a final plan for remedial action; and that
- 6.) The Department shall provide adequate notice of the final action to those affected persons and public notice in a manner required by law or regulations, including the right to appeal the final decision.

s/Robert P. Haynes
Robert P. Haynes, Esquire
Senior Hearing Officer



**DNREC-Site Investigation
and Restoration Branch**

LEGAL NOTICE

**FINAL PLAN OF REMEDIAL ACTION
FOR THE FORMER SUNOCO TANK FARM
SITE (DE-1238), WILMINGTON**

WHAT: The Site Investigation and Restoration Branch (SIRB), on behalf of the Department of Natural Resources and Environmental Control (DNREC or the Department), adopts the Proposed Plan of Remedial Action (Proposed Plan) as the Final Plan of Remedial Action (Final Plan) for the Former Sunoco Tank Farm (Site). DNREC issues this Final Plan under the authority of the Hazardous Substance Cleanup Act (HSCA), 7 Del. C. Chapter 91.

WHERE: The Site is located at intersection of Marsh and Naamans Creek Road, Wilmington, Delaware. The majority of the Site is located in Bethel Township, Pennsylvania. The Pennsylvania portion of the Site has been granted a "Release of Liability" under PADEP Act 2. The Delaware portion is comprised of eight (8) parcels for a total of approximately 3.46 acres in size. The Site is located north of the Northcrest development, directly behind Chinchilla Drive. All properties are currently vacant and grass covered.

WHY: The property was operated as a heating fuel tank farm for Sunoco R&M Inc from approximately 1919 to the 1980s. The past industrial use of the property may have resulted in the increased levels of metals detected in soils. Elevated petroleum contaminant concentrations were also detected in groundwater.

The property owner is planning to sell the parcels to a developer, leaving the property as open space.

Based on the results of the investigation(s), DNREC calls for the following remedial actions to be taken at the Site:

- Recording of an environmental covenant consistent with Delaware's Uniform Environmental Covenants Act (Title 7, Del. C. Chapter 79, Subtitle II) by the site owner. The covenant will include a restriction limiting property use to open space and will not allow residential or commercial/industrial development, prohibit land disturbing activities, and prevent groundwater use.
- Prohibiting the installation of groundwater wells by establishing a Groundwater Management Zone (GMZ).
- A groundwater monitoring plan will be developed for the site that will include five (5) years of groundwater monitoring for five wells. After two (2) years of quarterly monitoring, data will be reviewed by DNREC and depending on results, the following three (3) years of monitoring may be performed on a semi-annual basis. Degradation of the contaminants will be recorded by measuring water quality parameters during the sampling events and comparing over time. Results will be submitted to DNREC. Additionally, after the first 5 year review, DNREC will determine if any further actions at the site will be necessary.

For further details regarding the Proposed Plan and the Final Plan, a copy is available at the Wilmington Library or at the office of DNREC-SIRB, 391 Lukens Drive, New Castle, DE 19720. The Proposed Plan and the Final Plan are also posted on DNREC-SIRB's website at <http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/> under the subject "Announcements." For site specific information, please go to DNREC's superfund site files database at <http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/sifiles.asp>.

Pursuant to 7 Del. C. § 9107 (e) (2), DNREC invited written comments on the Proposed Plan. The public comment period began on May 4, 2008 and closed on May 26, 2008. DNREC did not receive any comments to the Proposed Plan. Pursuant to 7 Del. C. § 9110 (b)(1), the public may appeal this Final Plan within twenty (20) days following the date of this notice. For additional information, please contact Morgan Price, Project Manager, or Robert Newsome, Public Information Officer, at (302) 395-2600.

August 6, 2008

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